

Jane Elizabeth TATESON  
Serial No. 10/585,890  
December 8, 2009

**REMARKS/ARGUMENTS**

Reconsideration of this application is respectfully requested. Currently claims 1-20 are pending in this application.

**REQUEST TO ACKNOWLEDGE APPLICANT'S CLAIM FOR FOREIGN PRIORITY AND RECEIPT OF PRIORITY DOCUMENT:**

Applicant requests that the next Office Action acknowledge Applicant's claim for foreign priority and receipt of certified priority documents (which is believed to have been properly received during the International Phase of the present application at WIPO).

**REQUEST TO ACKNOWLEDGE ACCEPTANCE OF DRAWINGS:**

Applicant submitted four (4) sheets of annotated drawings illustrating Figs. 1-4 in the Amendment filed January 16, 2009. Applicant requests that the next Office Action acknowledge receipt and acceptance of these drawing sheets.

**REJECTIONS UNDER 35 U.S.C. §102 AND 103:**

The rejection of claims 1, 4-10 and 13-17 under 35 U.S.C. §102 as allegedly anticipated by Wan '024 is respectfully traversed.

Anticipation under Section 102 of the Patent Act requires that a prior art reference disclose every claim element of the claimed invention. See, e.g., *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1574 (Fed. Cir. 1986). Wan fails to disclose every claim element of the claimed invention. For example, Wan fails to disclose "means for determining the values of the property being measured by devices similar to said sensor device; and means

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for adjusting the periodicity of measurement according to the values the sensor has measured and the measured values received from the devices similar to said sensor device,” as required by independent claim 1 and its dependents. Wan also fails to disclose “transmitting the values of the property being measured by each device from each device to one or more other devices, and adjusting the periodicity of measurement of each device according to the values it has measured and the values it has received from the one or more other devices,” as required by independent claim 10 and its dependents.

Independent claims 1 and 10 require that a sensor device determines the values of the property being measured by similar devices. The Office Action alleges that the claimed sensor device is disclosed by Wan's mobile device.

The Office Action alleges “One ordinary skilled in the art could relate base stations and mobile units are similar devices because both deal with communications.” Applicant respectfully disagrees with this allegation.

First, the Office Action does not even allege that base stations and mobile devices are similar devices. The Office Action merely alleges that “One ordinary skilled in the art could relate base stations and mobile units are similar devices....” This allegation is thus clearly based on hypothetical conjecture that is not factually supported at all.

Second, as explicitly stated by MPEP 2111, “During patent examination, the pending claims must be ‘given their broadest reasonable interpretation consistent with the specification (*emphasis added*).’” Based on the specification, one of ordinary skill in the art would have concluded that base stations and mobile units are not similar devices. For example (but without

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limitation), page 7 of the specification discusses differences between base stations (i.e., which are fixed stations) and mobile units as follows (emphasis added):

The destination 90 is a fixed receiver station, which will be referred to as an information "sink", and which collects data collected by the mobile terminals 10, 20, 30 etc for subsequent processing. There may be more than one sink in the network. The sink device 90 is more powerful than the sensor devices 10, 20 30 etc, both in terms of processing capability and power-consumption, and either have long-term storage facilities for the data, or a long-range transmission link 98 to a data-processing centre 99. The sensor devices 10, 20, 30 themselves have very limited battery power (allowing only short-range wireless transmissions), small processors and limited memory. In operation, each device is allocated a status value which is determined in accordance with the amount of data in its buffer store, the remaining battery life and the positions of neighbouring devices, data being forwarded from one device to another if the difference in status value exceeds a threshold. Data is only transmitted if this criterion is met, resulting in an efficient use of the devices as relays by minimising the transmission power required and avoiding congestion of any individual buffers. Suitable systems are discussed in the applicant's earlier applications referred to above.

Accordingly, when the pending claims are given their broadest reasonable interpretation consistent with the specification, base stations and mobile units are not "similar" devices. Any interpretation to the contrary is inconsistent with the specification, as well as inconsistent with the teachings of Wan and understanding by those skilled in the art.

Third, the allegation the base stations and mobile units are similar devices just because both generally deal with communications is unfounded. A base station and a mobile unit are clearly not interchangeable with each other as they perform different functions. Wan's teachings regarding his base station 104 and mobile unit 106 (see pgs. 1-2 of Wan) suggest that Wan's base

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station 104 and mobile unit 106 perform different functions and are not interchangeable. Tellingly, Wan's base station 104 and (hand-held) mobile unit 106 even look different and have dramatically different physical parameters -- as can be appreciated from Fig. 1 (reproduced below) of Wan.

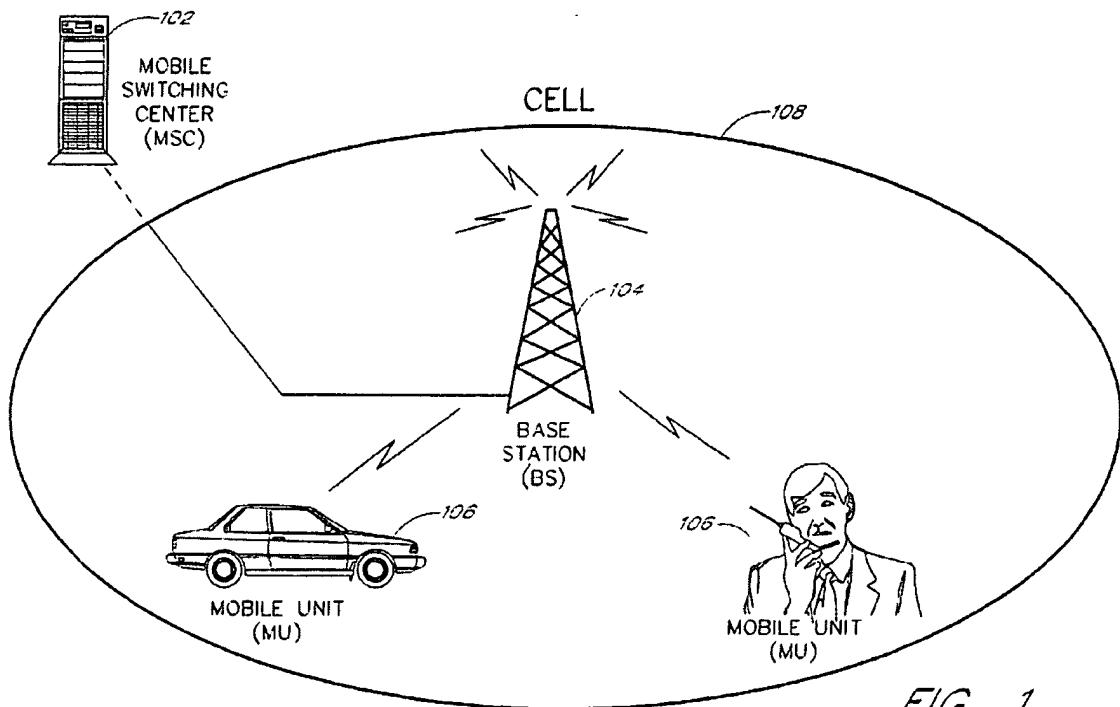


FIG. 1

Moreover, even if Wan's base station and mobile device were similar devices as incorrectly alleged by the Office Action, claims 1 and 10 would still not be anticipated by Wan. In particular, use of the Office Action's (incorrect) interpretation would require that Wan's mobile device can determine the values of the property being measured by base stations (i.e., the alleged similar devices) for Wan to anticipate claims 1 and 10.

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However, Wan does not suggest this claim limitation. Wan's mobile device only measures the strength of signals received from the base stations, and indeed the rate of change of such properties. There is no disclosure or suggestion that Wan's base stations transmit, to his mobile device, the results of measurements the base stations have themselves taken. Indeed, there is no disclosure or suggestion in the cited passages of Wan that the base stations taking any such measurements in the first place. In Wan, the base stations play no part in the process he describes other than to generate the signals which are scanned by the mobile device. In particular, Wan's reference to "adjusting the scanning rate of the neighbouring cells" (paragraph 86 and Figure 5, step 530) clearly refers to a process performed by the mobile device, in which it changes the rate at which it scans the cells, and not a process performed by the cells themselves.

The mobile device of Wan therefore uses no measurements other than those it has generated itself. Wan therefore fails to disclose determination of values of the property that have been measured by other devices, as required by claims 1 and 10. This is the case regardless of whether these claims are interpreted such that those other devices are similar to each other.

Again, Wan's base stations do not transmit any measured values the base stations have themselves taken. The base stations merely transmit a signal whose strength can be measured. Wan's mobile unit does not receive any values of signal strength from elsewhere, and therefore cannot process any values other than those it has determined for itself. For the purposes of the process described in Wan, the base stations' transmissions are simply part of the environment in which the mobile unit finds itself.

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Wan's system is concerned with adjusting the periodicity at which measurements of signal strength are taken, according to the rate at which such measurements are changing. Such changes occur because the measurement point is moving, and the adjustment of periodicity is done to conserve power in the internal power supply. The fixed base stations in a cellular telephone network do not need to determine how fast they are moving, because they are indeed fixed. The base stations also usually have an external power supply. The base stations therefore do not need to perform the same processes as Wan's mobile devices do, and indeed there is no suggestion that they do so. Indeed, if the signal strength were to vary or to be intermittent, it would be difficult for the mobile units to make reliable contact with them.

Claims 1 and 10 allows for adjusting the periodicity of measurement according to the rate at which a property is found to be changing (e.g., over an area or a volume). For this to be achieved, contemporaneous measurements made at nearby locations are needed. This requires multiple devices to exchange data with each other, to determine the spatial distribution of the property being measured. Wan does not permit this. Indeed, since the purpose of Wan's measurements is to determine whether the device should hand over from one base station to another, the measurements made by other mobile devices are irrelevant to it.

The distinction between spatial and temporal variation of signal strength is slightly blurred in Wan because, relative to a fixed reference point, the signal strength does not vary with time but does vary in space. Because the mobile device is indeed mobile, the signal strength that it detects will vary with time. However, at any given moment, it has no direct knowledge of the current signal strength anywhere other than its present location. Whether one considers this as

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measuring a time-variant property or a space-variant property, depends on your frame of reference, but Wan's device cannot make use of any measurements other than those it has made itself, wherever the sensor happened to be at each moment a measurement was made. The present invention, by comparing both the rate of change of a property it has measured itself and values of the same property measured elsewhere, can determine how the property is varying in both time and space.

Claims 1 and 10 are not limited per se to mobile devices. Since, unlike the situation in Wan (base station signal strength), the properties Applicant envisage being measured may vary in time (see page 1), an array of fixed sensors can have utility in measuring time-variant environmental properties such as temperature, pressure, and chemical properties.

Accordingly, Applicant requests that the rejection under 35 U.S.C. §102 be withdrawn.

The rejection of claims 2-3, 11-12 and 18-20 under 35 U.S.C. §103 as allegedly being made "obvious" based on the same single Wan reference is also respectfully traversed – for reasons already noted above with respect to parent claims 1 and 10. Once again, given such fundamental deficiencies of Wan, it is not necessary at this time to detail additional deficiencies of this reference with respect to other aspects of the rejected claims. Suffice it to note that, as a matter of law, it is impossible to support even a *prima facie* case of obviousness with respect to any claim unless the prior art at least teaches or suggests every feature of the rejected claims.

As an example, dependent claim 19 requires "wherein each of the sensor device and the devices similar to said sensor device is a mobile device" and dependent claim 20 requires "wherein each of the plurality of sensor devices is a mobile device." The Office Action alleges

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that "Wan is silent with regards to the base stations being mobile base stations." Applicant disagrees with this allegation. For example, Wan explicitly discloses the base station 104 broadcasting and receiving data within a cell 108, which has a roughly hexagonal geographic region having a radius of up to 35 kilometers or more, in compliance with the Global System for Mobile communications (GSM) standard. See paragraphs [0032]-[0033] of Wan. These disclosures of Wan clearly indicate that Wan's base stations are not mobile as alleged by the Office Action. Even the depiction of base station 104 in Fig. 1 (reproduced above) in Wan suggests that it is not mobile (or silent with respect to being mobile or not) as alleged by the Office Action.

**CONCLUSION:**

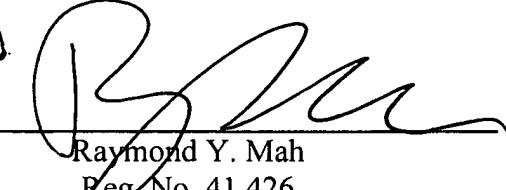
Applicant believes that this entire application is in condition for allowance and respectfully requests a notice to this effect. If the Examiner has any questions or believes that an interview would further prosecution of this application, the Examiner is invited to telephone the undersigned.

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Respectfully submitted,

**NIXON & VANDERHYE P.C.**

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